

IN THE SPECIFICATION

Please amend the first paragraph of the specification on page 6 as follows:

Referring to FIGURE 3, tooth 24 of worm 12 is shown. Tooth 24, like the teeth of the worm gear, is contiguously formed with body portion 22 and comprises opposing flanks, shown generally at 42a and 42b, extending away from body portion 22 and a crown 44 extending between each flank 42a, 42b at points distal from body portion 22. Because worm 12 is created helically, a helix angle β is defined between the thread forming teeth 24 and body portion 22. The helix angle minus 90° corresponds to a lead angle β of the worm, which is typically less than the helix angle of the worm gear so that a gap is defined between the teeth of the worm gear and tooth 24 of worm 12 when worm 12 and the worm gear intermesh in order to force the teeth of worm 12 to outboard portions 38 of teeth 26.

Please amend the last paragraph of the specification on page 7 as follows:

One manner of maintaining the double flank contact between teeth 24, 26 of worm/worm gear assembly 10 can be achieved through the alteration of helix angles α , β of worm 12 and worm gear 14. Such alteration of helix angles α , β allows for contact to be maintained on facing flanks of teeth 26 of worm gear 14 when no additional torsional load is imposed on worm/worm gear assembly 10. Alteration of helix angles α , β can be attained by changing the dimensions and positioning of teeth 24, 26, or it can be attained by skewing axes of rotation 16, 20 of either or both of worm 12 and worm gear 14 shown generally at 46 and 36, respectively. The resulting double flank contact allows for a smooth power transmission between worm 12 and worm gear 14, a smooth transition between spring rates, and a minimum amount of turning torque.

Please amend the first paragraph of the specification on page 10 as follows:

Referring now to FIGURE 5, worm/worm gear assembly 10 can be lubricated in such a manner so as to ensure smooth operation of worm/worm gear assembly 10, thereby ensuring the longevity of the parts involved. In particular, during a no-load condition, a gap 54 is defined between the outboard flanks of teeth 24, 26 of the worm

and the worm gear due to the particular geometry of worm/worm gear assembly 10 and in particular the difference between the lead and helix angles of teeth 24 of the worm and teeth 26 of the worm gear, respectively. Gap 54 is variably dimensioned to accommodate a lubricant (not shown) therein, the surface tension of which prevents the leakage of the lubricant from gap 54 except during periods of loading. During such periods of loading, a compressive force is applied to the flanks of teeth 24, 26, and the lubricant is squeezed out of gap 54 to a degree that corresponds with the compressive force of the loading. After being squeezed from gap 54, a thin film of the lubricant, the thickness of which is variable depending upon the force of compression, remains on each flank to lubricate teeth 24, 26, thereby reducing the friction therebetween. Upon the release of the compressive force, the volume defined by gap 54 increases and the pressure therein decreases to siphon lubricant that was previously squeezed out of gap 54 back into space 54.